



Express Mail Label No.: EV139505387US  
Date of Deposit: May 1, 2003

Attorney Docket No. 19374-504

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: Farmer  
ASSIGNEE: Ganeden Biotech, Inc.  
SERIAL NUMBER: 09/369,016 EXAMINER: I. Marx  
FILING DATE: August 5, 1999 ART UNIT: 1651  
FOR: METHODS FOR INCREASING THE SOLUBILITY OF ESSENTIAL VITAMINS &  
MINERALS IN MAMMALS USING PROBIOTIC LACTIC ACID-PRODUCING  
BACTERIA, SYSTEMS, AND COMPOSITIONS

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Commissioner for Patents  
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AMENDMENT AND RESPONSE

In response to the Office Action mailed on November 5, 2002, please amend the application as follows.

In the claims:

Please cancel claim 65, amend claims 57 and 66, and replace the pending claims with the following amended claims:

51. A method of increasing bioavailability of nutrients in a mammal comprising buccally administering to said mammal a composition consisting essentially of an isolated *Bacillus coagulans* bacterium, a fructo-oligosaccharide, a mineral gluconate and a supplementary enzyme, wherein said enzyme is selected from the group consisting of a lactase, an amylase, a glucanase, and a catalase.

52. The method of claim 51, wherein said *Bacillus coagulans* bacterium is a lyophilized vegetative cell.

53. The method of claim 51, wherein said bacteria is *Bacillus coagulans* Hammer.

54. The method of claim 51, wherein said bacteria is in the form of a spore.